

IN THE CLAIMS:

Please cancel claims 16-19, amend claims 3, 9, 11, and 13-15, and add new claims 20-33 as follows:

3. (Currently amended) An information apparatus for notifying output information to a remote terminal in response to an input signal of a sound, comprising:

a first memory block configured to store characteristic data representing characteristics of various sounds;

a second memory block configured to store various items of output information in correspondence to the characteristic data of the various sounds such that each one of the items of the output information is associated to each sound;

a plurality of input devices that are spatially distributed to collect the sound from a source location, and that respectively provide input signals of the same sound;

a detector device that processes the input signals provided from the spatially distributed input devices to detect the source location of the sound;

an analyzer device that extracts characteristic data from at least one of the input signals of the collected sound;

a controller device that operates according to the extracted characteristic data for addressing the first memory block and the second memory block to identify one of the items of the output information corresponding to the collected sound; and

a transmitter device that transmits the identified one of the items of the output information to the remote terminal together with the detected source location of ~~the sound~~. the sound.

wherein a new sound and a corresponding item of the output information can be registered for updating the first memory block and the second memory block such that the analyzer device extracts new characteristic data from the new sound, and the controller device registers the extracted new characteristic data into the first memory block and registers the corresponding one of the items of the output information into the second memory block.

4. (Previously presented) The information apparatus as claimed in claim 3, further comprising a canceler device configured to check whether the output information associated to the sound is true or false according to the source location of the sound, and to cancel transmission of the output information if the output information is false.

5. (Previously presented) The information apparatus as claimed in claim 3, wherein the analyzer device is configured to analyze a frequency spectrum of the sound to extract therefrom a characteristic pattern, which is stored as the characteristic data in the first memory block, and the controller device is configured to use the characteristic pattern as an index to identify the one of the items of the output information corresponding to the sound.

7. (Previously presented) A remote terminal for use in combination with the information apparatus as claimed in claim 3, comprising:

a receiver device configured to receive the output information transmitted from the information apparatus;

a stimulator device, said stimulator device being activated when the output information is received by the receiver device for physically stimulating a user of the remote terminal to draw attention of the user to the output information; and

a display device that is configured to display the received output information such that the stimulated user can readily read the output information.

9. (Currently amended) A method of notifying output information to a remote terminal in response to an input signal of a sound, comprising the steps of:

storing characteristic data representing characteristics of various sounds in a first memory;

storing various items of output information in correspondence to the characteristic data of the various sounds in a second memory such that each one of the items of the output information is associated to each sound;

arranging a plurality of input devices in different locations, said input devices being configured to collect the sound from a source location such that each one of the input devices provides input signals of the same sound emitted from the source location;

processing the input signals provided from the plurality of input devices to detect the source location of the sound;

extracting characteristic data from at least one of the input signals of the collected sound;

addressing the first memory and the second memory based on the extracted characteristic data so as to identify one of the items of the output information corresponding to the collected sound; [[and]]

transmitting the identified one of the items of the output information to the remote terminal together with the detected source location of ~~the sound.~~ the sound; and

registering a new sound and a corresponding one of the items of output information to update the first memory and the second memory such that new characteristic data is extracted from the new sound and the corresponding one of the items of the output information is determined in association with the new sound, and then the extracted new characteristic data is stored in the first memory while the corresponding one of the items of the output information is stored in the second memory.

11. (Currently amended) A machine-readable medium for use in an information apparatus having a central processing unit, a plurality of input devices, a first memory storing characteristic data representing characteristics of various sounds, and a second memory storing various items of output information in correspondence to the characteristic data of the various sounds such that each one of the items of the output information is associated to each sound, the medium containing program instructions executable by the central processing unit for causing the information apparatus to perform a process of notifying output information to a remote terminal in response to an input signal of a sound, wherein the process comprises the steps of:

operating the plurality of input devices arranged in different locations to collect the sound from a source location such that each one of the input devices provides input signals of the same sound emitted from the source location;

treating the input signals provided from the plurality of input devices to detect the source location of the sound;

extracting characteristic data from at least one of the input signals of the collected sound;

addressing the first memory and the second memory based on the extracted characteristic data so as to identify one of the items of the output information corresponding to the collected sound; [[and]]

transmitting the identified one of the items of the output information to the remote terminal together with the detected source location of ~~the sound~~. the sound; and

registering a new sound and a corresponding one of the items of output information to update the first memory and the second memory such that new characteristic data is extracted from the new sound and the corresponding one of the items of the output information is determined in association with the new sound, and then the extracted new characteristic data is stored in the first memory while the corresponding one of the items of the output information is stored in the second memory.

13. (Currently amended) An information apparatus for dispatching an output phrase to a remote terminal in response to an input signal of a sound, comprising:

first memory means configured to store characteristic data representing characteristics of various sounds;

second memory means configured to store various output phrases in correspondence to the characteristic data of the various sounds such that each output phrase is associated to each sound;

a plurality of input means arranged in different locations to collect the sound from a source location such that each one of the plurality of input means is configured to provide an input signal of the same sound emitted from the source location;

means for processing the input signals provided from the plurality of input means to detect the source location of the sound;

means for extracting characteristic data from at least one of the input signals of the collected sound;

means for addressing the first memory means and the second memory means based on the extracted characteristic data so as to identify the output phrase corresponding to the collected sound; [[and ]]

means for transmitting the identified output phrase to the remote terminal together with the detected source location of ~~the sound~~; the sound; and

means for registering a new sound and a corresponding output phrase such that new characteristic data is extracted from the new sound and the corresponding output phrase is determined in association with the new sound so that the extracted new characteristic data is stored in the first memory means and the corresponding output phrase is stored in the second memory means.

14. (Currently amended) An information apparatus for notifying output information to a remote terminal in response to an input signal of a sound, comprising:

means for storing characteristic data representing characteristics of various sounds as well as various items of output information corresponding to said characteristic data of said various sounds such that each one of the items of the output information is associated to each sound;

means for collecting the sound to provide the input signal of the collected sound;

means for identifying one of the items of the output information corresponding to the collected sound; [[and]]

means for transmitting the identified one of the items of the output information to the remote ~~terminal~~, terminal; and

means for registering a new sound and a corresponding one of the items of output information such that new characteristic data is extracted from the new sound and the corresponding one of the items of the output information is determined in association with the new sound so that the extracted new characteristic data and the corresponding one of the items of output information are stored, respectively, is said storing means,

wherein said information apparatus includes a recognition mode of operation and a registration mode of operation, and said remote terminal includes a means for allowing a user to remotely select and set said mode of operation of said information apparatus.

15. (Currently amended) The information apparatus of ~~claim 14~~ claim 3, wherein the remote terminal is configured to display the output information in a format selected from the group consisting of text, graphics, images, motion picture, and combinations thereof.

16 - 19. Canceled.

20. (New) An information apparatus for notifying output information to a remote terminal in response to an input signal of a sound, comprising:

a first memory block configured to store characteristic data representing characteristics of various sounds;

a second memory block configured to store various items of output information in correspondence to the characteristic data of the various sounds such that each one of the items of the output information is associated to each sound;

a plurality of input devices that are spatially distributed at different locations to collect the sound from a source location, and that respectively provide input signals of the same sound;

a detector device that processes the input signals provided from the spatially distributed input devices by comparing respective sound powers of the input signals with each other to detect the source location of the sound based on the comparison results;

an analyzer device that extracts characteristic data from at least one of the input signals of the collected sound;

a controller device that operates according to the extracted characteristic data for addressing the first memory block and the second memory block to identify one of the items of the output information corresponding to the collected sound;

a transmitter device that transmits the identified one of the items of the output information to the remote terminal together with the detected source location of the sound; and

a canceler device configured to check whether the output information associated to the sound is true or false according to the source location of the sound, and to cancel transmission of the output information if the output information is false, so as to prevent a false alarm.

21. (New) The information apparatus as claimed in claim 20, wherein the analyzer device is configured to analyze a frequency spectrum of the sound to extract therefrom a characteristic pattern, which is stored as the characteristic data in the first memory block, and the controller



device is configured to use the characteristic pattern as an index to identify the one of the items of the output information corresponding to the sound.

22. (New) A remote terminal for use in combination with the information apparatus as claimed in claim 20, comprising:

a receiver device configured to receive the output information transmitted from the information apparatus;

a stimulator device, said stimulator device being activated when the output information is received by the receiver device for physically stimulating a user of the remote terminal to draw attention of the user to the output information; and

a display device that is configured to display the received output information such that the stimulated user can readily read the output information.

23. (New) The information apparatus of claim 20, wherein the remote terminal is configured to display the output information in a format selected from the group consisting of text, graphics, images, motion picture, and combinations thereof.

24. (New) A method of notifying output information to a remote terminal in response to an input signal of a sound, comprising the steps of:

storing characteristic data representing characteristics of various sounds in a first memory;

storing various items of output information in correspondence to the characteristic data of the various sounds in a second memory such that each one of the items of the output information is associated to each sound;

arranging a plurality of input devices in different locations, said input devices being configured to collect the sound from a source location such that each one of the input devices provides input signals of the same sound emitted from the source location;

processing the input signals provided from the plurality of input devices by comparing respective sound powers of the input signals with each other to detect the source location of the sound based on the comparison results;

extracting characteristic data from at least one of the input signals of the collected sound;

addressing the first memory and the second memory based on the extracted characteristic data so as to identify one of the items of the output information corresponding to the collected sound;

checking whether the output information associated to the sound is true or false according to the source location of the sound and canceling transmission of the output information if the output information is false, so as to prevent a false alarm; and

transmitting the identified one of the items of the output information that is true to the remote terminal together with the detected source location of the sound.

25. (New) A machine-readable medium for use in an information apparatus having a central processing unit, a plurality of input devices that are spatially distributed at different locations, a first memory storing characteristic data representing characteristics of various sounds, and a second memory storing various items of output information in correspondence to the characteristic data of the various sounds such that each one of the items of the output information is associated to each sound, the medium containing program instructions executable by the central processing unit for causing the information apparatus to perform a process of notifying

output information to a remote terminal in response to an input signal of a sound, wherein the process comprises the steps of:

operating the plurality of input devices arranged in different locations to collect the sound from a source location such that each one of the input devices provides input signals of the same sound emitted from the source location;

treating the input signals provided from the plurality of input devices by comparing respective sound powers of the input signals with each other to detect the source location of the sound based on the comparison results;

extracting characteristic data from at least one of the input signals of the collected sound;

addressing the first memory and the second memory based on the extracted characteristic data so as to identify one of the items of the output information corresponding to the collected sound;

checking whether the output information associated to the sound is true or false according to the source location of the sound and canceling transmission of the output information if the output information is false, so as to prevent a false alarm; and

transmitting the identified one of the items of the output information that is true to the remote terminal together with the detected source location of the sound.

26. (New) An information apparatus for dispatching an output phrase to a remote terminal in response to an input signal of a sound, comprising:

first memory means configured to store characteristic data representing characteristics of various sounds;

second memory means configured to store various output phrases in correspondence to the characteristic data of the various sounds such that each output phrase is associated to each sound;

a plurality of input means arranged in different locations to collect the sound from a source location such that each one of the plurality of input means is configured to provide an input signal of the same sound emitted from the source location;

means for processing the input signals provided from the plurality of input means by comparing respective sound powers of the input signals with each other to detect the source location of the sound based on the comparison results;

means for extracting characteristic data from at least one of the input signals of the collected sound;

means for addressing the first memory means and the second memory means based on the extracted characteristic data so as to identify the output phrase corresponding to the collected sound;

means for checking whether the output phrase associated to the sound is true or false according to the source location of the sound and for canceling transmission of the output phrase if the output phrase is false, so as to prevent a false alarm; and

means for transmitting the identified output phrase that is true to the remote terminal together with the detected source location of the sound.

27. (New) An information apparatus for notifying output information to a remote terminal in response to an input signal of a sound, comprising:

means for storing characteristic data representing characteristics of various sounds as well as various items of output information corresponding to said characteristic data of said various sounds such that each one of the items of the output information is associated to each sound;

means for collecting the sound to provide the input signal of the collected sound;

means for identifying one of the items of the output information corresponding to the collected sound;

means for checking whether the output information associated to the sound is true or false according to the source location of the sound and for canceling transmission of the output information if the output information is false, so as to prevent a false alarm; and

means for transmitting the identified one of the items of the output information that is true to the remote terminal,

wherein said information apparatus includes a recognition mode of operation and a registration mode of operation, and said remote terminal includes a means for allowing a user to remotely select and set said mode of operation of said information apparatus.

28. (New) An information apparatus for notifying output information to a remote terminal in response to an input signal of a single sound, comprising:

a first memory block configured to store characteristic data representing characteristics of various sounds;

a second memory block configured to store various items of output information in correspondence to the characteristic data of the various sounds such that each one of the items of the output information is associated to each sound;

a plurality of input devices that are spatially distributed in different locations to collect the single sound from a source location, and that respectively provide input signals of the same sound;

a detector device that processes the input signals provided from the spatially distributed input devices to detect the source location of the single sound;

an analyzer device that extracts characteristic data from at least one of the input signals of the collected sound;

a controller device that operates according to the extracted characteristic data for addressing the first memory block and the second memory block to identify one of the items of the output information corresponding to the collected sound; and

a transmitter device that transmits the identified one of the items of the output information to the remote terminal together with the detected source location of the single sound.

29. (New) The information apparatus as claimed in claim 28, further comprising a canceler device configured to check whether the output information associated to the single sound is true or false according to the source location of the sound, and to cancel transmission of the output information if the output information is false, so as to prevent a false alarm.

30. (New) The information apparatus as claimed in claim 28, wherein the analyzer device is configured to analyze a frequency spectrum of the single sound to extract therefrom a characteristic pattern, which is stored as the characteristic data in the first memory block, and the controller device is configured to use the characteristic pattern as an index to identify the one of the items of the output information corresponding to the sound.

31. (New) A remote terminal for use in combination with the information apparatus as claimed in claim 28, comprising:

a receiver device configured to receive the output information transmitted from the information apparatus;

a stimulator device, said stimulator device being activated when the output information is received by the receiver device for physically stimulating a user of the remote terminal to draw attention of the user to the output information; and

a display device that is configured to display the received output information such that the stimulated user can readily read the output information.

32. (New) The information apparatus of claim 28, wherein the remote terminal is configured to display the output information in a format selected from the group consisting of text, graphics, images, motion picture, and combinations thereof.

33. (New) An information apparatus for dispatching an output phrase to a remote terminal in response to an input signal of a single sound, comprising:

first memory means configured to store characteristic data representing characteristics of various sounds;

second memory means configured to store various output phrases in correspondence to the characteristic data of the various sounds such that each output phrase is associated to each sound;

a plurality of input means spatially distributed at different locations to collect the single sound from a source location such that each one of the plurality of input means is configured to provide an input signal of the same sound emitted from the source location;

means for processing the input signals provided from the plurality of input means to detect the source location of the single sound;

means for extracting characteristic data from at least one of the input signals of the collected sound;

means for addressing the first memory means and the second memory means based on the extracted characteristic data so as to identify the output phrase corresponding to the collected sound; and

means for transmitting the identified output phrase to the remote terminal together with the detected source location of the single sound.